Day Co

CLAIMS DT09 Rec'd PCT/PT0 19 AUG 2004

1. A urine sample collection device comprising:-

a urine receptor having a surface which flares out from 5 an outlet aperture to a rim defining a perimeter of an inlet area into which a user urinates;

a generally elongate tubular member extending to an open end from said receptor outlet aperture and receiving urinated urine flowing from said outlet aperture, the tubular member 10 having an opening formed in the side thereof;

a coupling means for releasably mounting a urine collection container, the coupling means having a passage extending therethrough which meets said opening whereby urine flowing in the tubular member can flow therefrom into a 15 mounted container; and

a flow director located within the tubular member at or adjacent said opening and formed to direct urine past the opening.

- A device according to claim 1 wherein the flow
 director comprises a projection towards a longitudinal axis of the tubular member.
 - 3. A device according to claim 2 wherein the projection is provided upstream of the opening.
- 4. A device according to claim 3 wherein the 25 projection is also formed downstream of the opening.
 - 5. A device according to claim 3 or 4 wherein the projection upstream of the opening has a surface inclined relative to the surface of said side of the tubular member.
- 6. A device according to claim 3 or 4 wherein the 30 projection upstream of the opening comprises a wall which extends across the tubular member to an extent corresponding to an upstream edge of said opening.
- 7. A device according to any preceding claim wherein the flow director is formed to channel the urine flow along 35 either side of the aperture.

Va Ca

- 8. A device according to claim 2 wherein said projection towards the longitudinal axis of the tubular member comprises the passage of the coupling means, the passage extending into the tubular member and presenting an 5 area within the tubular member into which urine can enter and flow into the collection container.
- 9. A device according to claim 8 wherein the passage of the coupling means extends into the tubular member by an amount corresponding to between 20 and 60% of the height of 10 the internal dimension of the tubular member.
 - 10. A device according to claim 8 or 9 wherein said area comprises a semi-circle and wherein the passage extends into the tubular member to a greater extent downstream than upstream.
- 11. A device according to any one of claims 8 to 10 wherein the coupling means includes a further passage extending therethrough which meets said opening to present an area from which air in the collection container can escape into the tubular member.
- 20 12. A device according to claim 11 wherein the further passage of the coupling means extends into the tubular member by an amount which is greater than the first mentioned passage.
- 13. A device according to either: claim 11 or 12 wherein 25 an opening of the further passage in the tubular member faces downstream.
- 14. A device according to any of claims 11 to 13 the opening in the further passage is at an incline facing downstream relative to the surface of said side of the 30 tubular member.
 - 15. A device according to any of claims 11 to 14 wherein a covering means for the opening is provided adjacent the opening.
- 16. A device according to any preceding claim wherein 35 the tubular member tapers to said open end.

- L. 18
- 17. A device according to any preceding claim further comprising a flow limiter, or urine collection container having a flow limiter, for limiting flow of urine into the container.
- 18. A device according to claim 17 wherein the flow limiter allows urine to enter a container to a predetermined limit, after which further urine is prevented from entering the container.
- 19. A device according to either claim 17 or 18 wherein 10 the flow limiter comprises a valve between the opening and a container in use, which valve closes when the urine in the container reaches a predetermined level.
- 20. A device according any of claims 17 to 19 wherein the flow limiter comprises a valve through which urine can 15 flow from the tubular member into a container, the valve comprising a lower opening through which urine can pass into the container, an upper opening through which urine can enter the valve from the tubular member, and a closure member positioned between the upper and lower openings, and 20 dimensioned so as to be capable of closing the upper opening.
 - 21. A device according to claim 20 wherein the closure member has a density lower than that of urine.
- 22. A device according to claim 20 or 21 wherein the 25 closure member comprises a ball.
 - 23. A urine sample collection device substantially as herein described with reference to figures 2 to 10.